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DIALOG INFORMATION SERVICES

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Last logoff: 15jun05 13:09:40

Logon file405 17jun05 08:40:33

*** ANNOUNCEMENT ***

--UPDATED: Important Notice to Freelance Authors--
See HELP FREELANCE for more information

NEW FILES RELEASED

***CSA Aerospace & High Technology Database (File 108)

***CSA Technology Research Database (File 23)

***METADEX(r) (File 32)

***FDAnews (File 182)

***German Patents Fulltext (File 324)

***Beilstein Abstracts (File 393)

***Beilstein Facts (File 390)

***Beilstein Reactions (File 391)

RESUMED UPDATING

***Canadian Business and Current Affairs (262)

***CorpTech (559)

Chemical Structure Searching now available in Prous Science Drugs
of the Future (F453), IMS R&D Focus (F445), Beilstein Facts (F390),
and Derwent Chemistry Resource (F355).

REMOVED

***Health News Daily (43)

***FDC Reports Gold Sheet/Silver Sheet (184)

***FDC Reports (186/187)

***NDA Pipeline: New Drugs (189)

>>> Enter BEGIN HOMEBASE for Dialog Announcements <<<
>>> of new databases, price changes, etc. <<<

* * *

SYSTEM:HOME

Cost is in DialUnits

Menu System II: D2 version 1.7.9 term=ASCII

*** DIALOG HOMEBASE(SM) Main Menu ***

Information:

1. Announcements (new files, reloads, etc.)
2. Database, Rates, & Command Descriptions
3. Help in Choosing Databases for Your Topic
4. Customer Services (telephone assistance, training, seminars, etc.)

624-05

5. Product Descriptions

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6. DIALOG(R) Document Delivery
7. Data Star(R)

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/H = Help

/L = Logoff

/NOMENU = Command Mode

Enter an option number to view information or to connect to an online service. Enter a BEGIN command plus a file number to search a database (e.g., B1 for ERIC).

? b 410

```
17jun05 08:40:34 User222475 Session D87.1
      $0.00      0.209 DialUnits FileHomeBase
$0.00 Estimated cost FileHomeBase
$0.00 Estimated cost this search
$0.00 Estimated total session cost      0.209 DialUnits
```

File 410:Chronolog(R) 1981-2005/Mar

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Set Items Description

--- -----

? set hi ;set hi

HIGHLIGHT set on as ''

HIGHLIGHT set on as ''

? b foodsci

```
17jun05 08:40:52 User222475 Session D87.2
      $0.00      0.100 DialUnits File410
$0.00 Estimated cost File410
$0.08 TELNET
$0.08 Estimated cost this search
$0.08 Estimated total session cost      0.309 DialUnits
```

SYSTEM:OS - DIALOG OneSearch

File 5:Biosis Previews(R) 1969-2005/Jun W2

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File 6:NTIS 1964-2005/Jun W1

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File 10:AGRICOLA 70-2005/Jun

(c) format only 2005 The Dialog Corporation

File 50:CAB Abstracts 1972-2005/May

(c) 2005 CAB International

File 51:Food Sci.&Tech.Abs 1969-2005/Jun W2

(c) 2005 FSTA IFIS Publishing

File 53:FOODLINE(R): Science Sight 1972-2005/Jun 13

(c) 2005 LFRA

File 65:Inside Conferences 1993-2005/Jun W2

(c) 2005 BLDSC all rts. reserv.

File 79:Foods Adlibra(TM) 1974-2002/Apr

(c) 2002 General Mills

*File 79: This file is closed (no updates)

File 94:JICST-EPlus 1985-2005/Apr W4

(c)2005 Japan Science and Tech Corp(JST)

File 98:General Sci Abs/Full-Text 1984-2004/Dec

(c) 2005 The HW Wilson Co.

File 99:Wilson Appl. Sci & Tech Abs 1983-2005/May

(c) 2005 The HW Wilson Co.

File 144:Pascal 1973-2005/Jun W1

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File 203:AGRIS 1974-2005/Feb

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File 266:FEDRIP 2005/Jun

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File 399:CA SEARCH(R) 1967-2005/UD=14225

(c) 2005 American Chemical Society

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Alert feature enhanced for multiple files, etc. See HELP ALERT.

Set	Items	Description
---	-----	-----
? s krill		
S1	5713	KRILL
? s s1 and (protein or dense or myosin or precipitate)		
5713	S1	
4293131	PROTEIN	
160607	DENSE	
83959	MYOSIN	
38795	PRECIPITATE	
S2	1127	S1 AND (PROTEIN OR DENSE OR MYOSIN OR PRECIPITATE)
? s2 and liquid		
Processing		
Processed	10 of 15 files ...	
Completed processing all files		
11339223	2	
2135917	LIQUID	
S3	401284	2 AND LIQUID
? s s2 and liquid		
1127	S2	
2135917	LIQUID	
S4	35	S2 AND LIQUID
? t s4/6/1-35		

4/6/1 (Item 1 from file: 5)

0015292123 BIOSIS NO.: 200500199188

Isolation of selenium organic species from antarctic **krill** after enzymatic hydrolysis

2005

4/6/2 (Item 2 from file: 5)

0014289914 BIOSIS NO.: 200300248633

Method and apparatus for harvesting, digestion and dehydrating of **krill** hydrolysates and co-drying and processing of such hydrolysates

2003

4/6/3 (Item 3 from file: 5)

0009905170 BIOSIS NO.: 199598373003

Bacterial digestive enzyme activity in the stomach and hepatopancreas of *Meganyctiphanes norvegica* (M. Sars, 1857)

1995

4/6/4 (Item 4 from file: 5)

0008246001 BIOSIS NO.: 199293088892

PURIFICATION AND PARTIAL CHARACTERIZATION OF A NOVEL HYALURONIC ACID-DEGRADING ENZYME FROM ANTARCTIC **KRILL** EUPHAUSIA-SUPERBA

1991

4/6/5 (Item 5 from file: 5)

0006750860 BIOSIS NO.: 198988065975

BIOCHEMICAL AND BIOLOGICAL PROFILE OF A NEW ENZYME PREPARATION FROM
ANTARCTIC **KRILL** EUPHAUSIA-SUPERBA SUITABLE FOR DEBRIDEMENT OF
ULCERATIVE LESIONS
1989

4/6/6 (Item 6 from file: 5)
0005235729 BIOSIS NO.: 198682082116
HEAT COAGULATION OF CENTRIFUGED AND DECANTED RAW **KRILL** MINCE
1986

4/6/7 (Item 7 from file: 5)
0004794877 BIOSIS NO.: 198580103772
PROCESSING OF INTERMEDIATE PRODUCT **KRILL** PASTE DERIVED FROM
KRILL EUPHAUSIA-SUPERBA
1985

4/6/8 (Item 1 from file: 50)
0007891230 CAB Accession Number: 20001412953
Use of **krill** hydrolysate as a feed attractant for fish larvae and
juveniles.
Publication Year: 2000

4/6/9 (Item 1 from file: 51)
00883106 2003-Rv0535 SUBFILE: FSTA
Method and apparatus for harvesting, digestion and dehydrating of
krill hydrolysates and co-drying and processing of such hydrolysates.
2003

4/6/10 (Item 2 from file: 51)
00876964 2003-Rv0277 SUBFILE: FSTA
Method of obtaining thermoformed products using **dense** and
liquid Antarctic **krill** fractions.
2003

4/6/11 (Item 3 from file: 51)
00865415 2002-Rv0694 SUBFILE: FSTA
Method and apparatus for harvesting, digestion and dehydrating of
krill hydrolysates and co-drying and processing of such hydrolysates.
2002

4/6/12 (Item 4 from file: 51)
00784384 1999-05-r0329 SUBFILE: FSTA
Method and apparatus for processing **krill** hydrolysates.
1998

4/6/13 (Item 5 from file: 51)
00271708 84-01-r0058 SUBFILE: FSTA
(Characteristics of **krill** (Euphausia superba) and possibilities of
its processing into food.)
1982

4/6/14 (Item 6 from file: 51)
00271684 84-01-r0034 SUBFILE: FSTA
Application of partial autoprotoleolysis to extraction of **protein**
from Antarctic **krill** (Euphausia superba). Changes in and yield of

nitrogen substances during autoproteolysis of fresh and frozen **krill**.
1982

4/6/15 (Item 7 from file: 51)
00233918 83-02-r0090 SUBFILE: FSTA
(Preparation of a **protein** concentrate from marine raw material.)
Verfahren zur Herstellung eines Eiweisskonzentrates aus Meeresrohware.
1981

4/6/16 (Item 8 from file: 51)
00205558 81-07-r0468 SUBFILE: FSTA
Method for sterilizing, homogenizing and packaging **protein**
containing food.
1980

4/6/17 (Item 9 from file: 51)
00196920 81-01-r0021 SUBFILE: FSTA
(A method for estimation of the required current in the
electrocoagulation of water soluble fish **protein**.)
1979

4/6/18 (Item 10 from file: 51)
00181082 80-02-r0062 SUBFILE: FSTA
(Spray dried **protein** concentrate from Antarctic **krill** cleaned
by centrifuging.)
Spruehgetrocknetes Proteinkonzentrat aus zentrifugalgereinigtem
antarktischem **Krill**.
1979

4/6/19 (Item 11 from file: 51)
00175102 79-10-r0633 SUBFILE: FSTA
(Freezing process for production of textural **protein** food material
from **krill**.)
1978

4/6/20 (Item 12 from file: 51)
00123823 76-11-r0645 SUBFILE: FSTA
(Modification of a Russian method for separation of heat-coagulated
protein from Antarctic **krill**.)
1974

4/6/21 (Item 13 from file: 51)
00088990 74-11-r0576 SUBFILE: FSTA
(Method of obtaining an edible **protein** substance from small marine
crustaceans.)
1974

4/6/22 (Item 1 from file: 53)
01012892 FOODLINE ACCESSION NUMBER: 637112
Method of obtaining thermoformed products using **dense** and
liquid Antarctic **krill** fractions.
PATENT: EP 1402789 A1
PATENT: WO 03003857

4/6/23 (Item 2 from file: 53)

00965859 FOODLINE ACCESSION NUMBER: 606511
Method of obtaining thermoformed products using **dense** and
liquid Antarctic **krill** fractions.
PATENT: WO 03003857 A1

4/6/24 (Item 1 from file: 79)
280083 97170011
DON'T TELL THE WHALE LOVERS
Publication Date: 19971020

4/6/25 (Item 1 from file: 94)
03056771 JICST ACCESSION NUMBER: 97A0201106 FILE SEGMENT: JICST-E
Studies on Processing of Antarctic **Krill** (*Euphausia superba*) (Part3).
Inhibition of Protease Activity in Antarctic **Krill** (*Euphausia*
superba) by Aqueous Extract of Plant Foods., 1996

4/6/26 (Item 2 from file: 94)
00502068 JICST ACCESSION NUMBER: 87A0528630 FILE SEGMENT: JICST-E
Studies on the mechanisms of fiber formation from antarctic **krill**
protein., 1987

4/6/27 (Item 3 from file: 94)
00413275 JICST ACCESSION NUMBER: 87A0242613 FILE SEGMENT: JICST-E
The spinnability of antarctic **krill** muscle proteins and the behavior
of spinning dope., 1987

4/6/28 (Item 4 from file: 94)
00409564 JICST ACCESSION NUMBER: 87A0229521 FILE SEGMENT: JICST-E
Purification of laminarinase from Antarctic **krill** *Euphausia superba*.
, 1987

4/6/29 (Item 1 from file: 98)
04759852 H.W. WILSON RECORD NUMBER: BGSA02009852 (USE FORMAT 7 FOR
FULLTEXT)
Feeding and energy budgets of Antarctic **krill** *Euphausia superba* at
the onset of winter--I. *Furcilia* III larvae.
WORD COUNT: 7145
July 2002 (20020700)

4/6/30 (Item 2 from file: 98)
04755393 H.W. WILSON RECORD NUMBER: BGSA02005393 (USE FORMAT 7 FOR
FULLTEXT)
Mycosporine-like amino acids and related gadusols: biosynthesis,
accumulation, and UV-protective functions in aquatic organisms.
WORD COUNT: 18143
2002 (20020000)

4/6/31 (Item 3 from file: 98)
03051106 H.W. WILSON RECORD NUMBER: BGSI95051106 (USE FORMAT 7 FOR
FULLTEXT)
Microbiology to 10,500 meters in the deep sea.
WORD COUNT: 14157
'95 (19950000)

4/6/32 (Item 4 from file: 98)

03029672 H.W. WILSON RECORD NUMBER: BGSA95029672 (USE FORMAT 7 FOR FULLTEXT)

The secret lives of **krill**.

WORD COUNT: 3835

Summer 1995 (19950600)

4/6/33 (Item 1 from file: 144)

17116378 PASCAL No.: 05-0183493

Isolation of selenium organic species from antarctic **krill** after enzymatic hydrolysis

2005

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4/6/34 (Item 2 from file: 144)

12209957 PASCAL No.: 95-0427742

Bacterial digestive enzyme activity in the stomach and hepatopancreas of *Meganyctiphanes norvegica* (M. Sars, 1857)

1995

4/6/35 (Item 1 from file: 399)

DIALOG(R)File 399:(c) 2005 American Chemical Society. All rts. reserv.

Method of obtaining thermoformed products using dense and liquid Antarctic krill fractions

? t s4/9/6,9,10,13,14,15,16,18,19,20,21,22,23,25,27,35

4/9/6 (Item 6 from file: 5)

DIALOG(R)File 5:Biosis Previews(R)

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0005235729 BIOSIS NO.: 198682082116

HEAT COAGULATION OF CENTRIFUGED AND DECANTED RAW **KRILL** MINCE

AUTHOR: KARL H (Reprint)

AUTHOR ADDRESS: INST FUER BIOCHEMIE UND TECHNOL, BUNDESFORSCHUNGSANSTALT FUER FISCHEREI, HAMBURG**WEST GERMANY

JOURNAL: Archiv fuer Fischereiwissenschaft 37 (1): p199-212 1986

ISSN: 0003-9063

DOCUMENT TYPE: Article

RECORD TYPE: Abstract

LANGUAGE: ENGLISH

ABSTRACT: The heat coagulation properties of centrifuged and decanted raw **krill** mince were investigated by means of a continuous operating heat exchanger plant and by a microwave pilot plant. Freshly prepared, centrifuged and decanted raw **krill** mince as coagulated in both plants to an elastic, crablike tasting product, liberating some **liquid**. The average solid-**liquid** proportion was 60:40 using the heat exchanger, and 68:32 applying the microwave plant. 80 to 95% of the fat, more than 86% of the raw **protein** and over 84% of the fluoride remained in the solid coagulate, referred to the centrifuged and decanted raw **krill** mince (average fluoride content 121 mg F-/kg dry matter). Storage of the mince up to 17 hours before processing reduced the solid yield and the sensoric quality of the coagulate. Lowering of the pH-value of the centrifuged and decanted raw **krill** mince to pH 6 and pH 5, the fluoride content remaining in the coagulates could be reduced to 60% (100 mg F-/kg dry matter), and to 36% (73 mg F-/kg), respectively. Coagulates from both plants had no proteolytic activity.

REGISTRY NUMBERS: 16984-48-8: FLUORIDE

DESCRIPTORS: CHEMICAL CONTENT FLUORIDE SENSORIC QUALITY PH HEAT EXCHANGER

• PLANT MICROWAVE

DESCRIPTORS:

MAJOR CONCEPTS: Foods

BIOSYSTEMATIC NAMES: Malacostraca--Crustacea, Arthropoda, Invertebrata, Animalia

COMMON TAXONOMIC TERMS: Animals; Arthropods; Crustaceans; Invertebrates

CHEMICALS & BIOCHEMICALS: FLUORIDE

CONCEPT CODES:

06504 Radiation biology - Radiation and isotope techniques

10060 Biochemistry studies - General

10064 Biochemistry studies - Proteins, peptides and amino acids

10066 Biochemistry studies - Lipids

10069 Biochemistry studies - Minerals

10504 Biophysics - Methods and techniques

10618 External effects - Temperature as a primary variable - hot

10808 Enzymes - Physiological studies

13522 Food technology - Fish and other marine and freshwater products

13530 Food technology - Evaluations of physical and chemical properties

13532 Food technology - Preparation, processing and storage

20001 Sense organs - General and methods

BIOSYSTEMATIC CODES:

75112 Malacostraca

4/9/9 (Item 1 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

(c) 2005 FSTA IFIS Publishing. All rts. reserv.

00883106 2003-Rv0535 SUBFILE: FSTA

Method and apparatus for harvesting, digestion and dehydrating of **krill** hydrolysates and co-drying and processing of such hydrolysates.

Saxby, D. J.; Spence, J. A.; Saxby, G.; Aloise, P.

Biozyme Systems Inc.

PATENT CO.: United States Patent 2003

PATENT NO.: US 6 555 155 B2

NOTE: US 740004 (19961021) [Biozyme Systems, Vancouver, Canada]

DOCUMENT TYPE: Patent

LANGUAGE: English

A method and equipment to produce **krill** hydrolysates consists of: adding a predetermined quantity of **krill** hydrolysate to a predetermined quantity of dry carrier (with or without a predetermined quantity of **liquid** marine **protein**); evaporating and drying the mixture in steps in which relatively heavier particles separate from lighter particles; and blending or grinding the mixture before chemical reaction in a balance tank prior to entering a dryer (which consists of a warm air source, a tower and a cyclone to dry the mixture). Temperature sensitive enzymes or other bioactive products may be added to the product produced from the dryer. A method to obtain the enzymes from a fresh **krill** extract or an autolysed **krill** preparation and the product, and a method to separate bound **protein** pigments from crustacean waste using **krill** enzymes and a product produced using the method, are also described.

DESCRIPTORS (HEADINGS): CRUSTACEA; DRYING; ENZYMES; PATENTS; WASTES

DESCRIPTORS: **KRILL**

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/10 (Item 2 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00876964 2003-Rv0277 SUBFILE: FSTA

Method of obtaining thermoformed products using **dense** and **liquid** Antarctic **krill** fractions.

Pivovarov, P. P.; Pivovarov, E. P.

Angulas Aguinaga SA

PATENT CO.: PCT International Patent Application 2003

PATENT NO.: WO 03/003857 A1

NOTE: ES 01-00263 (20010704) [Angulas Aguinaga, E-20270 Irura, Spain]

DOCUMENT TYPE: Patent

LANGUAGE: Spanish SUMMARY LANGUAGE: English

A method of producing thermoformed **krill** products involves: separation of Antarctic **krill** into a **liquid** and a **dense** fraction; mixing and homogenization of the 2 fractions; adding other ingredients to the mixture (e.g. salt, carbohydrates and fats); and gelling the fractions in moulds or a thermoextruder using a suitable heating method.

DESCRIPTORS (HEADINGS): CRUSTACEA; MOULDING; PATENTS

DESCRIPTORS: **KRILL**

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/13 (Item 5 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

(c) 2005 FSTA IFIS Publishing. All rts. reserv.

00271708 84-01-r0058 SUBFILE: FSTA

(Characteristics of **krill** (*Euphausia superba*) and possibilities of its processing into food.)

Kolakowski, E.

Inst. Tech. Zywnosci Pochodzenia Morskiego, Akad. Rolnicza, 70-550 Szczecin, Poland

Przemysl Spozywczy 1982 , 36 (3) 88-92

NOTE: 28 reference

DOCUMENT TYPE: Review

LANGUAGE: Polish SUMMARY LANGUAGE: Russian; English; French; German

This review is mainly concerned with the very high F content of Antarctic **krill**, predominantly located in the carapace, but passing appreciably into the product in various procedures of converting **krill** into food. The various methoos of carapace removal in **krill** processing are considered. The partial autoproteolysis method of Kolakowski et al. (FSTA (1980) 12 10R583 & 10R584) is considered best, being technically simple and yielding a **protein** concentrate product virtually free from carapace. Unpublished data are quoted showing that **protein** concentrate obtained by drying **precipitate** from the separated **liquid** fraction after such autolysis, and extracting it with a mixture of isopropyl alcohol and water, contained only 70 mg F/kg DM. (SKK)

DESCRIPTORS: Crustacea--**krill**, carapace F & quality of, Review; Crustacea--**krill** **protein** concentrates, autolysis manufacture of, Review; Fluorides--**krill**, carapace F & quality of, Review; Fish **protein** concentrates--**krill** **protein** concentrates, autolysis manufacture of, Review; Decomposition--**krill** **protein** concentrates, autolysis manufacture of, Review; Reviews--**krill** **protein** concentrates, autolysis manufacture of

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/14 (Item 6 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00271684 84-01-r0034 SUBFILE: FSTA

Application of partial autoproteolysis to extraction of **protein** from Antarctic **krill** (*Euphausia superba*). Changes in and yield of nitrogen substances during autoproteolysis of fresh and frozen **krill**.

Kolakowski, E.; Lachowicz, K.

Acad. of Agric., Inst. of Marine Food Tech., Szczecin, Poland

Nahrung 1982 , 26 (10) 933-939

NOTE: 9 reference

DOCUMENT TYPE: Journal Article

LANGUAGE: English SUMMARY LANGUAGE: German; Russian

Comparative studies were conducted on preparation of **protein** isolate from (i) fresh **krill** or (ii) frozen **krill** stored for 10 months at -10 DEGREE C. Samples of **krill** were subjected to autoproteolysis in water for 90 min at temperature over the range 10-60 DEGREE C, and the autoproteolysate was separated and fractionated (into **liquid**, semi-**liquid** and solid fractions) by centrifugation. Viscosity was evaluated, and **protein** and N fractions were determined. Tables and graphs of results are given. Maximum **protein** yield was achieved with proteolysis at 20 DEGREE C for both (i) and (ii). % solids in the autoproteolysate increased with increasing temperature, especially for (i). At low autoproteolysis temperature, (i) showed higher proteolytic activity than (ii), this difference being reflected in differences in viscosity and N fraction concentration Regression equations relating autoproteolysis temperature (over the range 10-40 DEGREE C) to tyrosine and amino acid N concentration are logarithmic for (i), exponential for (ii). For (i), yields of most **protein** fractions decreased at autoproteolysis temperature GREATER THAN 40 DEGREE C; for (ii) yields of most fractions increased over the range 40-60 DEGREE C. (AJDW)

DESCRIPTORS: Proteolysis--**krill protein** isolates, autoproteolysis & quality of; Crustacea--**krill protein** isolates, autoproteolysis & quality of; Fish **protein** concentrates--**krill protein** isolates, autoproteolysis & quality of; Frozen foods--**krill protein** isolates, autoproteolysis & quality of frozen

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/15 (Item 7 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00233918 83-02-r0090 SUBFILE: FSTA

(Preparation of a **protein** concentrate from marine raw material.)

Verfahren zur Herstellung eines Eiweisskonzentrates aus Meeresrohware.

Mohnke, H.; Fratzscher, F.; Genentz, A.; Bykov, V.((Bykov, V.));

Lagunow((Lagunov)), L. L.; Kriwosheina((Krivosheina)), L. I.

Bykov, V.; Lagunov, L. L.; Krivosheina, L. I.

PATENT CO.: German Democratic Republic Patent 1981

PATENT NO.: 152 672

DOCUMENT TYPE: Patent

LANGUAGE: German

Raw material (**krill** or fish) is pressed through a sieve to remove shells or bones (sieve hole size 0.8-1.2 mm for **krill**, 4-5 mm for fish). The resulting material is cooked and sterilized, then separated into solid and **liquid** components in a centrifuge or press. The solids are gently dried in a drum-type drier. 14.1 t **krill** gives 1.47 t **protein** concentrate (**protein** content 77%); 12 t hake give 0.93 t **protein** concentrate (**protein** content 86.3%). (IN)

DESCRIPTORS: Fish **protein** concentrates--FPC, **krill** processing for, Patent; Fish **protein** concentrates--FPC, fish processing for, Patent; Crustacea--FPC, **krill** processing for, Patent; Fish--FPC, fish processing for, Patent

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/16 (Item 8 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00205558 81-07-r0468 SUBFILE: FSTA

Method for sterilizing, homogenizing and packaging **protein** containing food.

Monaco, J. R.; Rausing, H. A.

Tetra Pak Developpement SA

PATENT CO.: United States Patent 1980

PATENT NO.: 4 233 320

DOCUMENT TYPE: Patent

LANGUAGE: English

Processing, sterilization and packaging of a food product are described, starting from a raw material basically consisting of **krill**, to give a **protein** rich food product with good taste, consistency, structure, preparing abilities and keeping properties. Method involves breaking down the whole **krill** into small particles, sterilization of the broken down **krill**, cooling and grinding the sterilized product into **liquid** or semi-**liquid** form and packaging the **liquid** substance under aseptic conditions, the **liquid** substance being solidified in the aseptic packages. (RAW)

DESCRIPTORS: Packaging--**krill** products, manufacture of packaged sterilized, Patent; Crustacea--**krill** products, manufacture of packaged sterilized, Patent

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/18 (Item 10 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00181082 80-02-r0062 SUBFILE: FSTA

(Spray dried **protein** concentrate from Antarctic **krill** cleaned by centrifuging.)

Spruehgetrocknetes Proteinkonzentrat aus zentrifugalgereinigtem antarktischem **Krill**.

Flechtenmacher, W.; Wanke, W.

Inst. fuer Biochem. & Tech., Bundesforschungsanstalt fuer Fischerei, Palmaille 9, D-2000 Hamburg 50, Federal Republic of Germany

Lebensmittel-Wissenschaft und -Technologie 1979 , 12 (4) 194-198

NOTE: 6 reference

DOCUMENT TYPE: Journal Article

LANGUAGE: German SUMMARY LANGUAGE: English

In trials of spray-drying of raw materials from freshly caught Antarctic **krill** (*Euphausia superba* Dana), cleaned by centrifuging off the **liquid** content of the intestinal organs unwanted in food processing, the sensory quality of the powder was tested immediately after drying. The centrifuged material gave better results compared to uncentrifuged material from the same haul; as well as spray-dried powder from raw **krill**, the improvement by centrifuging was also noticeable in spray-dried powder prepared from steamed, cooked **krill**. (AS)

DESCRIPTORS: Centrifugation--**krill** **protein** concentrates, centrifugation cleaning & spray-drying of Antarctic; Cleaning--**krill** **protein** concentrates, centrifugation cleaning & spray-drying of Antarctic; Spray-drying--**krill** **protein** concentrates, centrifugation cleaning & spray-drying of Antarctic; Crustacea--**krill** **protein** concentrates, centrifugation cleaning & spray-drying of Antarctic; **Protein** products--**krill** **protein** concentrates, centrifugation cleaning & spray-drying of Antarctic

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/19 (Item 11 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00175102 79-10-r0633 SUBFILE: FSTA

(Freezing process for production of textural **protein** food material from **krill**.)

Noguchi, A.; Sannomiya, N.; Umeda, K.; Kimura, S.

Resource Util. Laboratory, Dep. of Food English, Nat. Food Res. Inst., Tokyo, Japan

Journal of the Agricultural Chemical Society of Japan (Nihon Nogei Kagakkai-shi) 1978 , 52 (11) 545-547

NOTE: 7 reference

DOCUMENT TYPE: Journal Article

LANGUAGE: Japanese SUMMARY LANGUAGE: English

A freeze-denaturation process, akin to that used for koridofu (iced bean curd) was tested for its applicability to production of a textured food **protein** from **krill**. **Krill** flesh was mixed uniformly in a homogenizer or a kneader, and centrifuged. The **precipitate** was resuspended in the same volume of water and frozen at -7.5 DEGREE to -15 DEGREE C, pH 7.0. Addition of Na+ or Ca+ salts, pH adjustment to pH GREATER THAN OR EQUAL 10 before return to neutral pH, and aerobic conditions strengthened the product, but supernatant **liquid** presence, peroxide addition and anaerobic conditions had an opposite effect. N-ethylmaleimide modification showed that modification of **protein** -SH residues played a major role in the freeze-denaturation, as it does in koridofu production. (From En summ.) (JRR)

DESCRIPTORS: Freezing--**krill** proteins, freeze-denaturation of textured; Denaturation--**krill** proteins, freeze-denaturation of textured; Crustacea--**krill** proteins, freeze-denaturation of textured; **Protein** products--**krill** proteins, freeze-denaturation of textured

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/20 (Item 12 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00123823 76-11-r0645 SUBFILE: FSTA

(Modification of a Russian method for separation of heat-coagulated **protein** from Antarctic **krill**.)

Yanase, M.

Bulletin of the Tokai Regional Fisheries Research Laboratory (Tokai-ku Suisan Kenkyusho Kenkyu Hokoku) 1974 , Number 78, 79-84

NOTE: 5 reference

DOCUMENT TYPE: Journal Article

LANGUAGE: Japanese SUMMARY LANGUAGE: English

A modified version of a Russian method for preparation of heat-coagulated **krill protein** is described. Frozen **krill** are autolysed with an equal volume of water for 2 h at 45 DEGREE C, and pressed to separate the solid residue from the **liquid**. The **liquid** fraction is then heated at 95 DEGREE C for 15 min to coagulate the proteins, and centrifuged to separate the **protein** from the remaining extract. Yields of residue, **protein** fraction and extract were 10.4, 40.3 and 45% respectively; corresponding values for a non-autolysed sample were 70.3, 9.0 and 16.5% respectively. Data are given for DM, **protein**, fat and ash concentration and N distribution in the 3 fractions from **krill** samples autolysed for 0, 1, 2, 3, or 4 h. (From En summ.) (AJDW)

DESCRIPTORS: Proteins (unconventional)--**krill** proteins, manufacture of heat coagulated; **Krill**--manufacture of heat coagulated **krill** proteins; Heating--**krill** proteins, manufacture of heat coagulated

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/21 (Item 13 from file: 51)

DIALOG(R)File 51:Food Sci.&Tech.Abs

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00088990 74-11-r0576 SUBFILE: FSTA

(Method of obtaining an edible **protein** substance from small marine crustaceans.)

Kirpichnikov, V. P.; Nektrutman, S. V.; Sumenkov, B. I.

Union of Soviet Socialist Republics --, Moskovskii Institut Narodnogo Khozyaistva im. G. V. Plekhanova

PATENT CO.: USSR Patent 1974

PATENT NO.: 426 648

DOCUMENT TYPE: Patent

LANGUAGE: Russian

Crustaceans, e.g. **krill**, are comminuted and pressed, then the resultant **liquid** is heated to coagulate the **protein**, which is separated off. In order to provide more complete extraction of the **liquid**, to reduce chitin content and to accelerate the process, the comminuted mass is treated with an electromagnetic field of high or super-high frequency, e.g. 2375-2450 MHz, preferably at LESS THAN OR EQUAL 36-40 DEGREE C. (W&Co)

DESCRIPTORS: crustacea--**protein** extraction from small crustaceans, Patent; extraction--crustaceans, extraction of **protein** from, Patent; proteins (unconventional)--crustaceans, extraction of **protein** from, Patent; microwaves--crustacean **protein** product, microwave treatment of, Patent

SECTION HEADINGS: Fish & marine products (SC=r)

4/9/22 (Item 1 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Science Sight

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01012892 FOODLINE ACCESSION NUMBER: 637112

Method of obtaining thermoformed products using **dense** and

liquid Antarctic **krill** fractions.

Pivovarov P P; Pivovarov E P

PATENT ASSIGNEE: Angulas Aguinaga SA

PATENT: EP 1402789 A1

PATENT: WO 03003857

APPLICATION COUNTRY: ES (DATE(S):4.7.2001)

PRIORITY APPLICATION DATE: 4.7.2002

DESIGNATED STATES:

SeepublishedpatentdocumentforDesignatedContractingStates.

LANGUAGE: Spanish

SUMMARY LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 20040506

ABSTRACT: A process for producing thermoformed food products of high nutritional value is disclosed, in which Antarctic **krill** are separated into a **liquid** fraction and a **dense** (or solid) edible fraction, which preserve the proteins, nutrients and other useful compounds present in the **krill**. The fractions are mixed and homogenized, with the addition of ingredients such as salt, carbohydrates and fats. The mixture is then placed in moulds or an extruder and is heat-treated to obtain a gelled product.

SECTION HEADING: PROTEINS

DESCRIPTORS: CRUSTACEANS; EUROPEAN PATENT; INCREASE; **KRILL** PRODUCTS; NUTRITIONAL VALUE; PATENT; PRODUCTION; SEAFOOD PRODUCTS; SEAFOODS; SHELLFISH

4/9/23 (Item 2 from file: 53)

DIALOG(R)File 53:FOODLINE(R): Science Sight

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00965859 FOODLINE ACCESSION NUMBER: 606511

Method of obtaining thermoformed products using **dense** and

liquid Antarctic krill fractions.

Pivovarov P P; Pivovarov E P

PATENT ASSIGNEE: Angulas Aguinaga SA

PATENT: WO 03003857 A1

APPLICATION COUNTRY: ES (DATE(S):4.7.2001)

PRIORITY APPLICATION DATE: 4.7.2002

DESIGNATED STATES:

See published patent document for Designated Contracting States.

LANGUAGE: Spanish

SUMMARY LANGUAGE: English

DOCUMENT TYPE: Patent

FOODLINE UPDATE CODE: 20030328

ABSTRACT: A process for producing thermoformed food products of high nutritional value is disclosed, in which Antarctic **krill** are separated into a **liquid** fraction and a **dense** (or solid) edible fraction, which preserve the proteins, nutrients and other useful compounds present in the **krill**. The fractions are mixed and homogenized, with the addition of ingredients such as salt, carbohydrates and fats. The mixture is then placed in moulds or an extruder and is heat-treated to obtain a gelled product.

SECTION HEADING: PROTEINS

DESCRIPTORS: CRUSTACEANS; INCREASE; **KRILL** PRODUCTS; NUTRITIONAL VALUE; PATENT; PCT PATENT; PRODUCTION; SEAFOOD PRODUCTS; SHELLFISH

4/9/25 (Item 1 from file: 94)

DIALOG(R) File 94:JICST-EPlus

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03056771 JICST ACCESSION NUMBER: 97A0201106 FILE SEGMENT: JICST-E
Studies on Processing of Antarctic **Krill** (*Euphausia superba*) (Part3).

Inhibition of Protease Activity in Antarctic **Krill** (*Euphausia superba*) by Aqueous Extract of Plant Foods.

NAKAGAWA SADATO (1); MAESHIGE SHIZUHIKO (1)

(1) Hiroshima Prefect. Food Technol. Res. Center

Hiroshima Kenritsu Shokuhin Kogyo Gijutsu Senta Kenkyu Hokoku (Bulletin of Hiroshima Prefectural Food Technological Research Center), 1996, NO.21, PAGE.35-38, FIG.1, TBL.1, REF.7

JOURNAL NUMBER: F0654ACK ISSN NO: 0911-0801

UNIVERSAL DECIMAL CLASSIFICATION: 637.56+664.95

LANGUAGE: Japanese COUNTRY OF PUBLICATION: Japan

DOCUMENT TYPE: Journal

ARTICLE TYPE: Short Communication

MEDIA TYPE: Printed Publication

ABSTRACT: For control of aging of salted and fermented Antarctic **krill**, i. e., okiami-no-shiokara, inhibitory effect of the extracts from 24 edible plants on the protease activity in Antarctic **krill** was studied. The inhibitory effect on the activity of crude enzyme from raw **krill** (assayed by the casein-275nm absorption method) was in order of lotus>leek>garlic. IMAGE.burdock>tomato>potato. IMAGE.cabbage. The specific inhibitory effect was in order of parsley>tomato>leek. IMAGE.lotus>burdock>cabbage>Japanese radish>Japanese eggplant. The inhibitory effect of Leguminosae plant extracts could not be estimated owing to turbidity of the filtrates. The **krill** protease activity was found to be significantly inhibited by the extracts of potato, Japanese eggplant, carrot, soybean, kidney bean, adzuki bean, and sweet potato, on the basis of the amino acid nitrogen amount liberated from the okiami-no-shiokara in the course of the aging. (author abst.)

DESCRIPTORS: Euphausiacea; shiokara; peptide hydrolase; extraction

liquid; vegetable; enzyme inhibition; casein; enzymatic degradation; amino nitrogen; functional food; food processing

BROADER DESCRIPTORS: Malacostraca; Crustacea; Arthropoda; invertebrate; animal; aquatic food; food; aquatic product; pickled product; hydrolase

; enzyme; garden crop; crop(agriculture); agricultural food; enzyme regulation; adjustment; inhibition; milk **protein**; animal **protein**; **protein**; **protein**; phosphoprotein; enzyme availed reaction; reaction; decomposition; organic nitrogen; nitrogen form; element form; nutrition modified food; working and processing
CLASSIFICATION CODE(S): FJ13020C

4/9/27 (Item 3 from file: 94)
DIALOG(R)File 94:JICST-EPlus
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00413275 JICST ACCESSION NUMBER: 87A0242613 FILE SEGMENT: JICST-E
The spinnability of antarctic **krill** muscle proteins and the behavior of spinning dope.
CHANG H M (1); HAYAKAWA I (1); SHINOHARA K (1); OMURA H (1); HOSHI M (2); SASAMOTO Y (2); NONAKA M (2)
(1) Kyushu University, Fukuka, JPN; (2) Taiyo Fishery Co., Ltd., Tokyo, JPN
Nippon Shokuhin Kogyo Gakkaishi(Journal of Japanese Society of Food Science and Technology), 1987, VOL.34,NO.3, PAGE.197-202, FIG.6, REF.20
JOURNAL NUMBER: F0895AAX ISSN NO: 0029-0394 CODEN: NSKGA
UNIVERSAL DECIMAL CLASSIFICATION: 637.56+664.95
LANGUAGE: English COUNTRY OF PUBLICATION: Japan
DOCUMENT TYPE: Journal
ARTICLE TYPE: Original paper
MEDIA TYPE: Printed Publication

ABSTRACT: Denaturation and hydrolysis of proteins occur easily during the preparation of dope from antarctic **krill** (*Euphausia superba*) muscle proteins thus it is hard to obtain the homogenous spun fiber products. Heat generated during the mixing process of spinning dope enhances the denaturation and hydrolysis. In order to find out the most adequate approach to prepare spinning dope, the relationships between the spinnability and the major subunit contents of antarctic **krill** muscle proteins in various spinning dopes were studied with SDS-polyacrylamide gel electrophoresis and gel filtration. Dope which showed good spinnability was prepared optimum at 48.DEG.C during the mixing process and the most adequate concentration of NaOH was found to be 0.4% (w/w). The elution pattern of raw antarctic **krill** muscle proteins showed 3 peaks, but it was apparently altered by Na-alginate or K-carrageenan. Results showed that there was a complex formation between antarctic **krill** muscle proteins and anionic polysaccharides as they were homogenized during the mixing process.(author abst.)

DESCRIPTORS: Euphausiacea; aquatic food; processed **protein**; muscle **protein**; seafood processing; spinning(fiber); solution(**liquid**)

BROADER DESCRIPTORS: Malacostraca; Crustacea; Arthropoda; invertebrate; animal; food; aquatic product; **protein**; animal **protein**; food processing; working and processing; **liquid**

CLASSIFICATION CODE(S): FJ13020C

4/9/35 (Item 1 from file: 399)
DIALOG(R)File 399:CA SEARCH(R)
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138072308 CA: 138(6)72308x PATENT
Method of obtaining thermoformed products using dense and liquid Antarctic krill fractions
INVENTOR(AUTHOR): Pivovarov, Pavel Petrovich; Pivovarov, Eugeny Pavlovich
LOCATION: Spain,
ASSIGNEE: Angulas Aguinaga, S.A.
PATENT: PCT International ; WO 200303857 A1 DATE: 20030116

APPLICATION: WO 2002ES333 (20020704) *ES 200100263 (20010704)

PAGES: 20 pp. CODEN: PIXXD2 LANGUAGE: Spanish CLASS: A23L-001/33

DESIGNATED COUNTRIES: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BG; BR; BY; BZ; CA; CH; CN; CO; CR; CU; CZ; DE; DK; DM; DZ; EC; EE; ES; FI; GB; GD; GE; GH; GM; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MD; MG; MK; MN; MW; MX; MZ; NO; NZ; OM; PH; PL; PT; RO

DESIGNATED REGIONAL: GH; GM; KE; LS; MW; MZ; SD; SL; SZ; TZ; UG; ZM; ZW; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; IE; IT; LU; MC; NL; PT; SE; SK; TR; BF; BJ; CF; CG; CI; CM; GA; GN; GQ; GW; ML; MR; NE; SN; TD; TG

SECTION:

CA217007 Food and Feed Chemistry

IDENTIFIERS: krill gelation extrusion thermoforming

DESCRIPTORS:

Cooking...

extrusion; thermoformed products from Antarctic krill fractions

Seafood... Krill... Carbohydrates, biological studies... Wheat flour...

Flours and Meals... Proteins... Vitamins... Stabilizing agents... Egg white

... Food gelling...

thermoformed products from Antarctic krill fractions

Fats and Glyceridic oils, biological studies...

vegetable; thermoformed products from Antarctic krill fractions

CAS REGISTRY NUMBERS:

9005-25-8 7647-14-5 biological studies, thermoformed products from Antarctic krill fractions

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